Study and Report on Outpatient Therapy Utilization: Physical Therapy, Occupational Therapy, and Speech-Language Pathology Services Billed to Medicare Part B in all Settings in 1998, 1999, and 2000

Executive Summary

1.0 OVERVIEW OF THE STUDY

As part of the Balanced Budget Reconciliation Act of 1999 (BBRA), Congress requested that the Centers for Medicare and Medicaid Services (CMS) deliver a study of utilization patterns (including nationwide patterns, and patterns by region, types of settings, and diagnosis or condition) of outpatient therapy services covered under Medicare. The report was to compare therapy services provided on or after January 1, 2000 with utilization patterns for services provided in 1998 and 1999. The primary purpose of this current study was to meet the requirements of the BBRA Study and Report on Utilization.

Over the past decade, CMS had been expending increased resources to pay for Part B therapy services under Medicare. As a result, in the Balanced Budget Act (BBA) of 1997, Congress instituted annual per beneficiary financial caps on outpatient therapy services that were effective on 1 January 1999. Simultaneously, the Medicare Physician Fee Schedule (MPFS) was applied to institutional providers of these outpatient services. Subsequently, Congress instituted a moratorium on the enforcement of the financial caps, beginning 1 January 2000. The moratorium is currently slated to expire on 31 December 2002. Barring additional legislative action, the application of the financial caps would again become effective beginning 1 January 2003.

This study analyzed claims data from the entire universe of more than 15 million outpatient therapy claims per calendar year. Its methodology was consistent with published CMS requirements for the reporting of outpatient therapy services for the purposes of tracking the 1999 financial caps. The study reports on outpatient therapy services furnished by physical therapists (PT), occupational therapists (OT), and speech-language pathologists (SLP). In addition, Part B therapy services billed by all other practitioners, such as physicians and nurse practitioners were reported as "Other" therapy.

The study results include descriptive analysis of utilization from 1998 to 2000 by the following: beneficiary demographic characteristics - including age, race, gender, state and region of residence; the setting where services were furnished; and by the patient's primary claim diagnosis. Measurements of utilization included: the number of unique beneficiaries receiving outpatient therapy; the volume of claims; the volume of billed procedure units; utilization by month of service delivery; and Medicare payments for outpatient therapy. In addition, comparisons of the universe of therapy users to the entire Medicare enrollment database indicated trends in Medicare payments per enrollee. Medicare payment benchmark tables are presented to indicate the independent influence of beneficiary demographic variables on outpatient therapy utilization. Other variables were analyzed to provide additional detail.

2.0 FINDINGS

2.1 Analysis of Utilization by Beneficiary

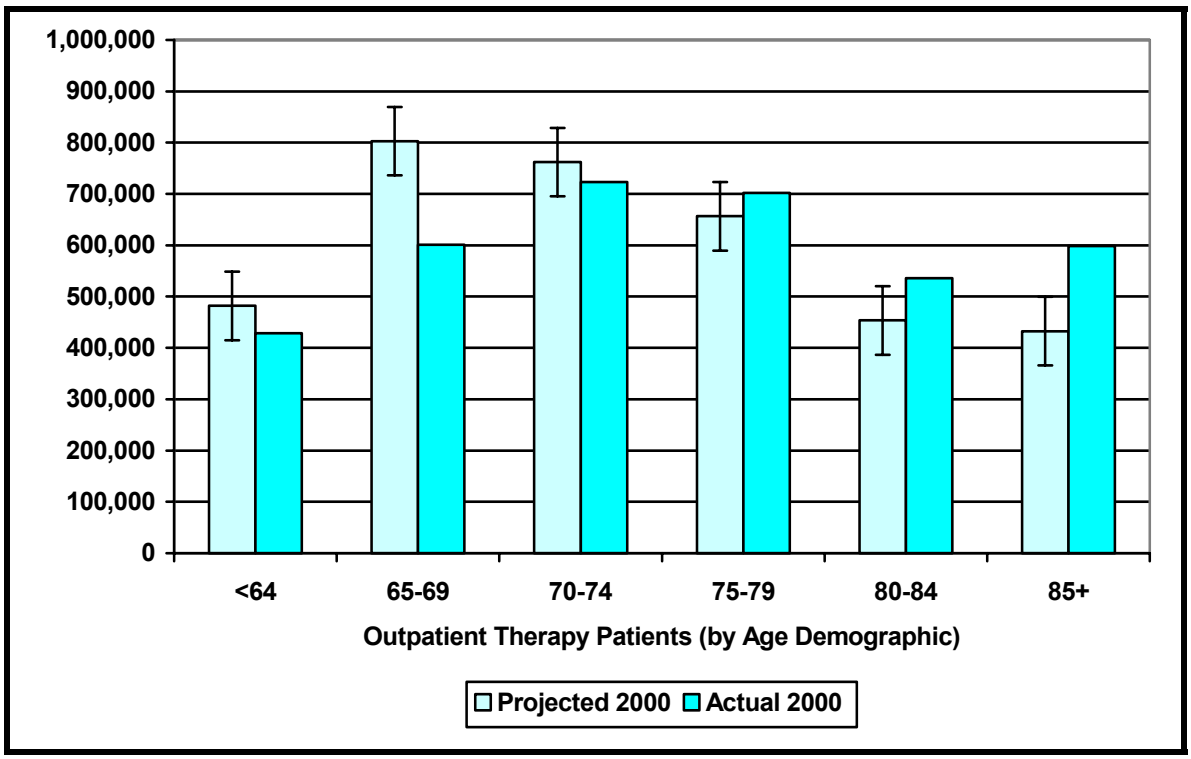
This study found that a modest percentage of Medicare enrollees received outpatient therapy services in any given year. Of the 41.6 million enrollees in CY 2000, only 8.6 percent, (nearly 3.6 million) received any outpatient therapy services.

Table A. Number of Medicare Part B Therapy Patients

Part B Therapy Patients	1998	1999	2000	% Change		
				98-99	99-00	98-00
Annual Total	3,511,793	3,424,309	3,589,865	-2.5%	4.8%	2.2%

An important finding was that the actual outpatient therapy population does not resemble the Medicare population at large. As Figure A highlights, the number of actual Part B therapy patients by age demographic differs from the distribution of a random sample of Medicare enrollees. Enrollees aged 80 and above are significantly more likely to receive Part B therapy services, while those aged 65-69 are less likely than average enrollee to receive outpatient therapy services.

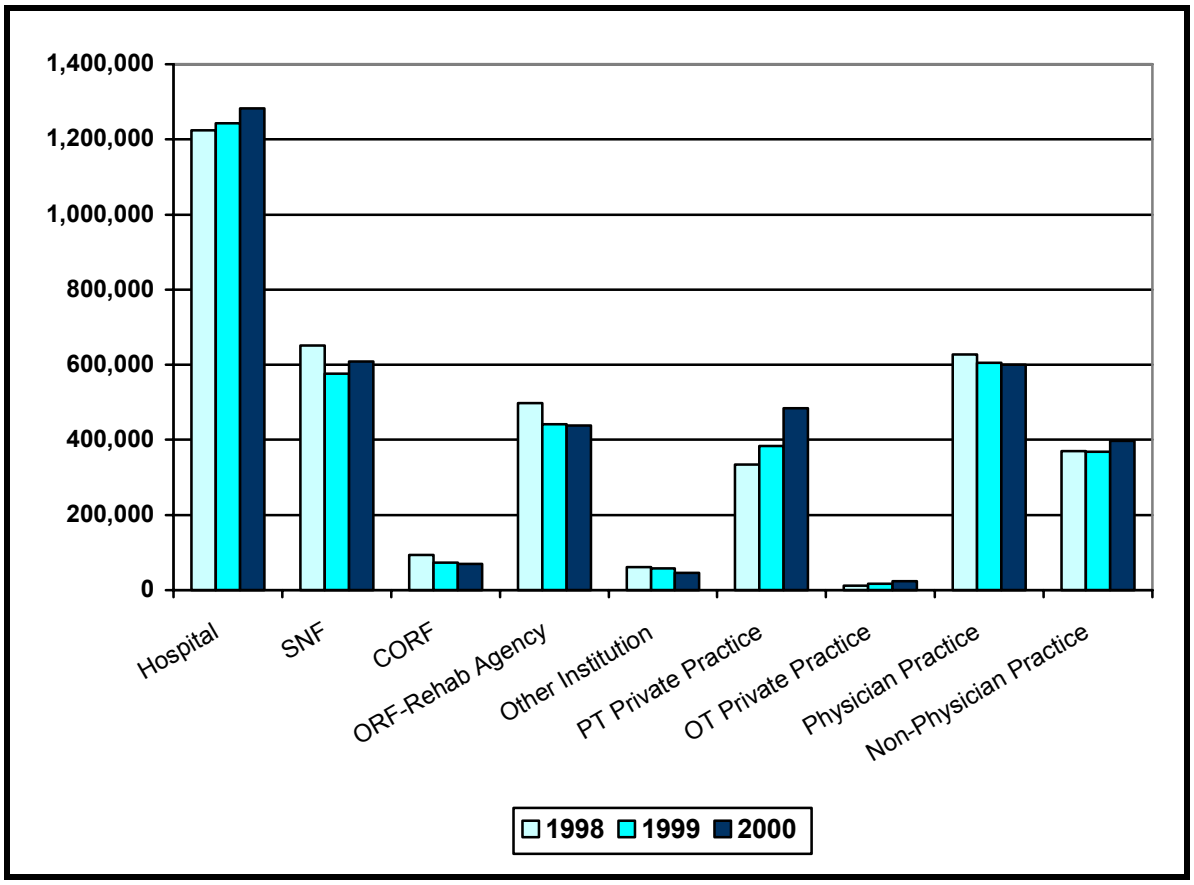
Figure A. Volume of Outpatient Therapy Patients Projected from the Denominator Compared to the Actual Therapy Population by Age



Outpatient therapy patients are more likely to be female, older, and live in particular geographic regions. A majority of Part B therapy patients receive services for orthopedic

conditions, particularly sprains and strains of the back, knees, hips, and shoulders. Stroke is the most common among neurological conditions. While approximately 10.1 percent of enrollees receive outpatient therapy services from more than one setting, the vast majority received services from a single provider. Most outpatient therapy patients (33%) are treated in hospital settings. Skilled Nursing Facilities (SNFs) and physician offices each see 15 percent, followed by physical therapists in private practice at 12 percent, Outpatient Rehabilitation Facilities (ORFs), commonly known as Rehabilitation Agencies, at 11 percent, and other nonphysician practitioners at 10 percent. Comprehensive Outpatient Rehabilitation Facilities (CORFs), occupational therapists in private practice, and other institutions each see fewer than 2 percent of outpatient therapy patients. Figure B highlights the three-year trends of utilization by setting.

Figure B. Annual Number of Outpatient Therapy Patients by Setting

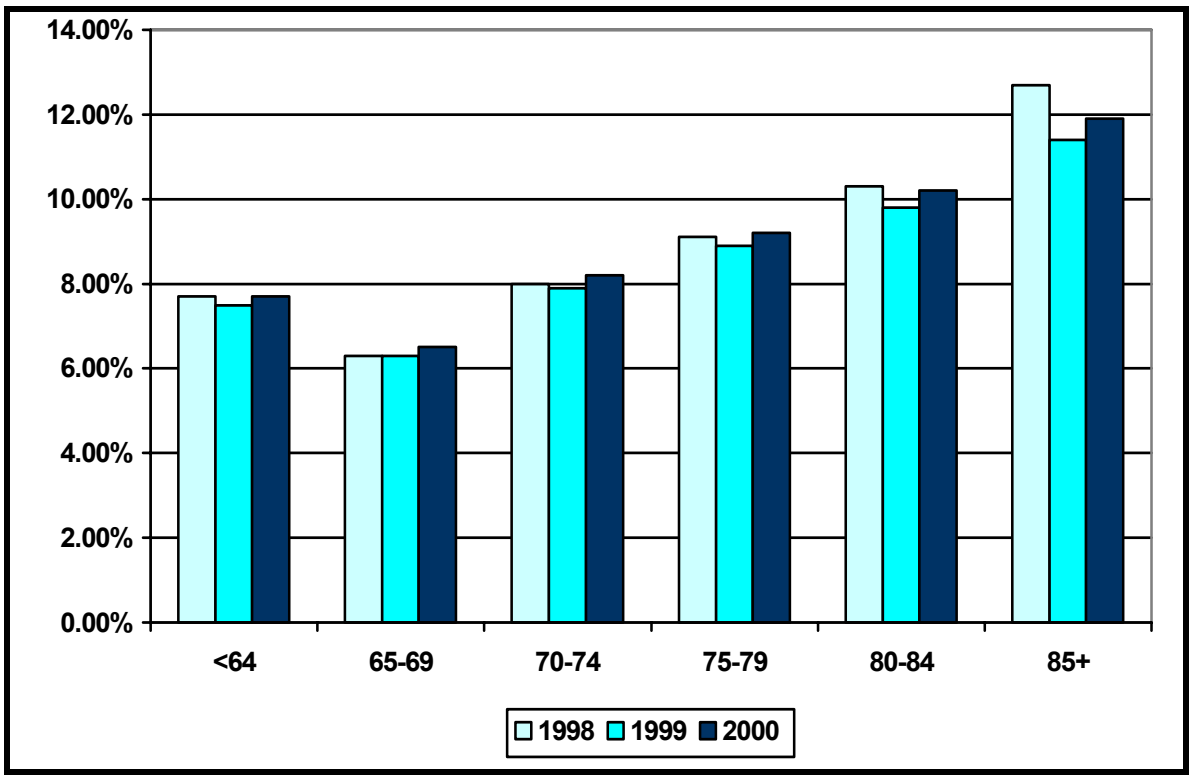


In CY 1999, when the therapy caps were imposed and institutional providers simultaneously became subject to the fee schedule, the number of outpatient therapy patients dropped nationally by over 87,000, or 2.5 percent. This was in spite of growth in the number of eligible Medicare beneficiaries. The beneficiary groups that demonstrated the most significant declines were individuals aged 80 and above, females, and individuals living in particular geographic locations. Settings that saw fewer patients included SNFs, CORFs, ORFs, and physician practice settings.

In CY 2000, when the caps were suspended, the number of patients increased nationally by 3.6 percent, to mirror national increases in enrollment. In the two uncapped years, 8.6 percent of enrollees received outpatient therapy services. In CY 1999, the rate was 8.3 percent. Most demographic variables demonstrated increases in patient numbers in CY 2000 consistent with national trends. The exceptions were individuals 85 and above, and those living in certain locations. Settings that saw increases in patient volume were occupational and physical therapists in private practice (+42 and +26 percent respectively), other nonphysician practices, and SNFs. CORFs, ORFs, and Other Institutions continued to treat fewer patients in CY 2000, suggesting a longer lasting shift in the pattern of outpatient therapy services away from institutional provider settings.

Figure C demonstrates changes in the percentage of Medicare enrollees receiving Part B therapy services by age demographic. This chart highlights several findings including that: older enrollees are more likely to receive outpatient therapy services; nearly all age groups had reduced services in CY 1999; and enrollees aged 80-84 and 85 and over were the only age groups less likely to receive Part B therapy in CY 2000 as compared to CY 1998.

Figure C. Percent of Enrollees Receiving Part B Therapy by Age



2.2 Analysis of Utilization by Payments

This study identified that Part B therapy payments represent a small percentage of overall Part B expenditures. Of the $87 billion paid to providers from the Part B Trust Fund in CY 2000, $2.1 billion (2.4%) was paid for outpatient therapy services. From CY 1998 through

CY 2000, expenditures for Part B therapy services dropped by 10.3 percent, in contrast with all other non-therapy Part B expenditures, which increased by 17.4 percent (Table B).

Table B. National Part B Therapy Expenditures (in Billions) Relative to Overall Part B Benefit Payments for All Services

Part B Benefit	1998	1999	2000	% Change		
				98-99	99-00	98-00
Non-Therapy Payments ($ billions)	$72.51	$77.47	$85.13	6.8%	9.9%	17.4%
Therapy Payments ($ billions)	$2.33	$1.54	$2.09	-33.9%	35.7%	-10.3%
Total Payments ($ billions) [1]	$74.84	$79.01	$87.21	5.6%	10.4%	16.5%
Outpatient Therapy Payment Percentage	3.1%	1.9%	2.4%	-37.4%	22.9%	-23.0%

Total Part B therapy expenditures are greatest for patients presenting with orthopedic conditions. However, patients presenting with neurological conditions such as hemiplegia, stroke, and Parkinson's disease are more likely to be among the highest cost users of outpatient therapy services. Among orthopedic conditions, sprains and strains of the knees and hips and hip fractures consistently generated higher per-patient expenditures. (See Table C.)

Table C. Diagnoses Generating the Highest Per-Patient Part B Therapy Expenditures During CY 2000

Rank By Average Payment Per-Patient	3-Digit ICD-9	Description	Total Patients With This ICD-9	Percent of Patients With This ICD-9	Total Therapy Paid for Patients With This ICD-9	Average Therapy Paid for Patients With This ICD-9
		All Patients	**3,589,865**	**100.0%**	**$2,087,301,077**	**$581**
1st	342	Hemiplegia and hemiparesis	13,989	0.4%	$23,720,390	$1,696
2nd	844	Sprains and strains of knee and leg	19,683	0.5%	$28,278,810	$1,437
3rd	436	Acute stroke (CVA)	90,095	2.5%	$121,887,025	$1,353
4th	438	Late effects CVA	54,326	1.5%	$71,304,181	$1,313
5th	799	Morbidity and mortality other ill-defined and unknown causes	36,215	1.0%	$43,014,084	$1,188
6th	843	Sprains and strains of hip and thigh	9,092	0.3%	$10,786,522	$1,186
7th	781	Symptoms involving nervous and musculoskeletal systems	142,720	4.0%	$164,792,428	$1,155
8th	820	Fracture of neck of femur (hip)	36,732	1.0%	$39,841,469	$1,085
9th	840	Sprains and strains of shoulder and upper arm	69,997	1.9%	$75,404,014	$1,077
10th	332	Parkinson's disease	32,282	0.9%	$33,699,697	$1,044

The combined influences of the application of fee schedule to institutional providers and the outpatient therapy caps in CY 1999 created an instantaneous and significant reduction

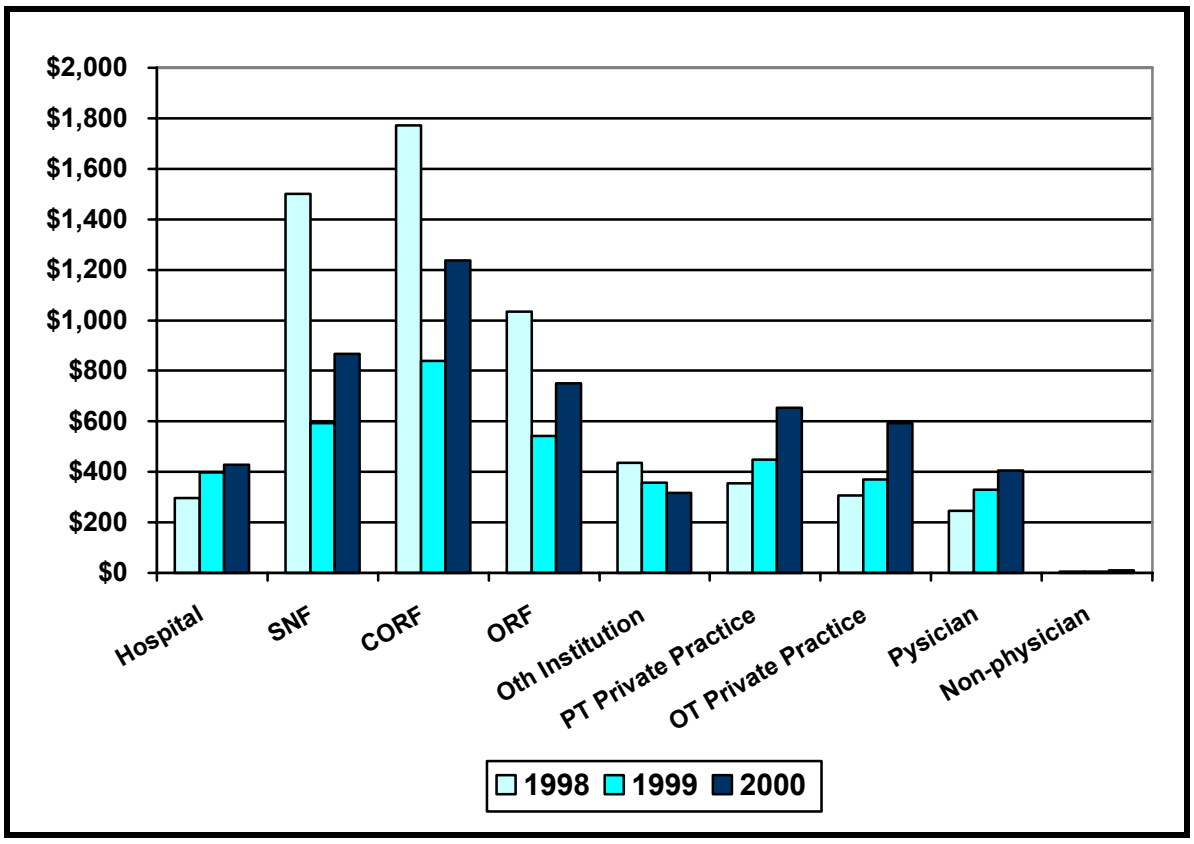
[1] 2002 Annual Report of the Boards of Trustees of the Federal Hospital Insurance and Federal Supplementary Medical Insurance Trust Funds, Table II.C5, p.81

in total Medicare payments. From CY 1998 to CY 1999, there was a net reduction in total payments of 33.9 percent, or $780 million. Per-patient therapy payments declined from $662 in CY 1998 to $449 in CY 1999 (See Table D and Figure D.)

Table D. Utilization of Part B Therapy Services - Summary

All Part B Provider Settings	1998	1999	2000	% Change		
				98-99	99-00	98-00
Annual Total Payments	$2,326,045,682	$1,538,036,816	$2,087,301,077	-33.9%	35.7%	-10.3%
Average Per-Patient Payments	$662	$449	$581	-32.2%	29.5%	-12.2%
Average Per-Enrollee Payments	$57.15	$37.43	$50.19	-34.5%	34.1%	-12.2%

Figure D. Average Per-Patient Payments for Part B Therapy (by Setting)



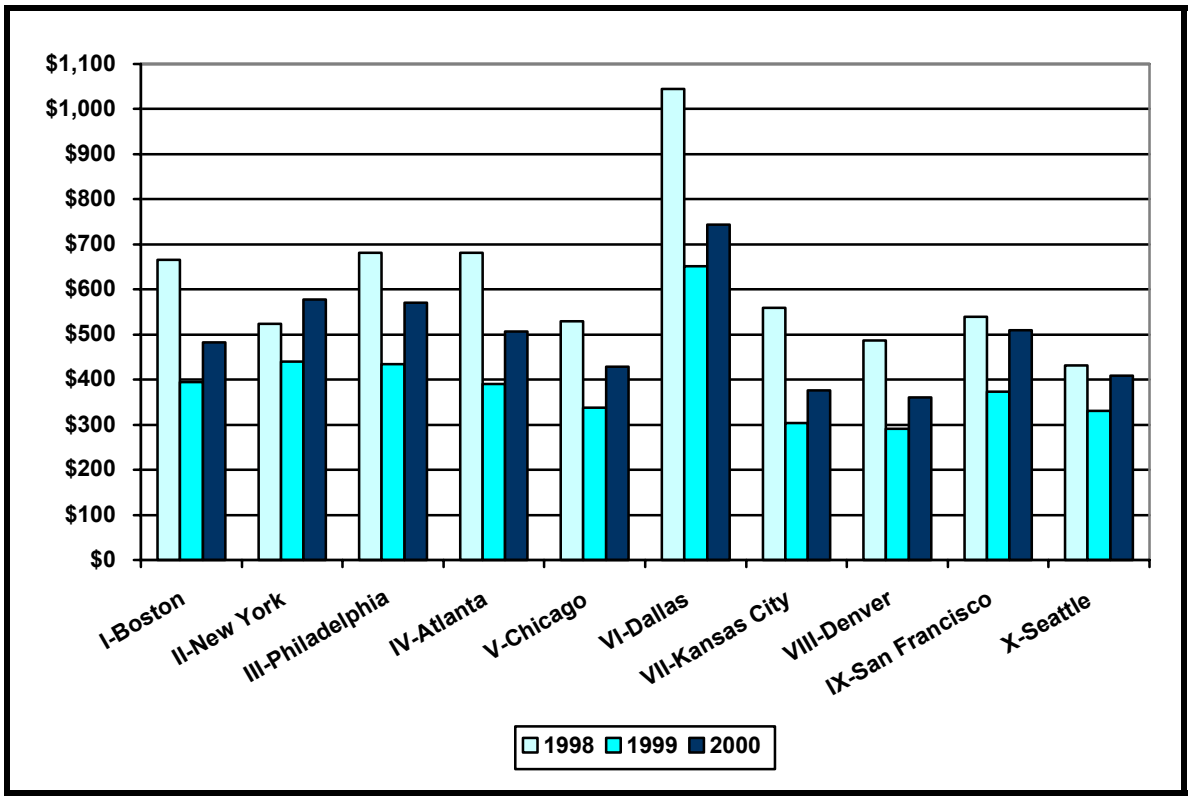
Payment reductions in CY 1999 were realized solely from reduced payments to institutional providers, which saw payments decline by 43.4 percent, or $890 million. Within institutions, SNFs, CORFs, and ORFs payment reductions ranged from 53 to 65 percent (Table E). Noninstitutional providers (therapists in private practice, physicians, and non physicians) actually saw increased payments of $101 million (+36.4%) in CY 1999. Analysis of payments by month indicated that the institutional provider payment reductions were principally driven by the new fee schedule payment methodology and secondarily by decreased patient volume. The increases in noninstitutional payments were related to increased fee schedule prices and increased patient volume.

Table E. Annual Payments for Medicare Part B Patients by Provider Setting

All Part B Provider Settings	Total Therapy Payments ($)			% Change		
	1998	1999	2000	98-99	99-00	98-00
Hospital (B)	$363,821,249	$493,523,567	$550,884,805	35.7%	11.6%	51.4%
SNF (B)	$977,513,243	$342,447,889	$528,342,932	-65.0%	54.3%	-46.0%
CORF (B)	$165,610,941	$61,402,584	$87,104,962	-62.9%	41.9%	-47.4%
ORF (B)	$514,209,791	$240,166,105	$328,966,148	-53.3%	37.0%	-36.0%
Other Institution (B)	$26,585,245	$21,016,529	$14,505,748	-20.9%	-31.0%	-45.4%
PT Private Practice	$119,139,543	$172,080,945	$316,011,790	44.4%	83.6%	165.2%
OT Private Practice	$3,421,649	$6,328,962	$14,473,106	85.0%	128.7%	323.0%
Physician Practice	$154,447,265	$199,148,171	$242,596,366	28.9%	21.8%	57.1%
Nonphysician Practice	$1,296,757	$1,916,780	$4,359,406	47.8%	127.4%	236.2%
All Part B Providers	**$2,326,045,682**	**$1,538,036,816**	**$2,087,301,077**	**-33.9%**	**35.7%**	**-10.3%**

There did not appear to be a systematic bias in CY 1999 in patient volume changes by beneficiary demographics. Payments patterns across demographic groups correlated with the type of provider setting of the patient. Those patients that were more likely to be treated by institutional providers (such as women, older patients, and minorities), or that lived in states that had high numbers of institutional providers compared to noninstitutional providers, demonstrated more significant payment reductions, consistent with reductions in institutional provider payments. Figure E highlights the three-year per patient payment changes by the CMS geographic demographic.

Figure E. Average Annual Per-Patient Therapy Payments by CMS Region



In CY 2000, with the suspension of the caps and significant increases in the Medicare Physician Fee Schedule (MPFS) for therapy procedures, outpatient therapy payments increased by $549 million. Of this amount, $351 million went to institutions and $198 million went to noninstitutions. Overall payments of $2.09 billion in CY 2000 remained 10.3 percent lower than CY 1998 ($2.33 billion). Despite the suspension of the caps, institutional payments remained 43.4 percent lower in CY 2000 than CY 1998. This residual reduction in payments in an uncapped environment clearly indicated that it was the application of the fee schedule to institutions in CY 1999, and not the therapy caps that principally drove payment reductions. Noninstitutional providers, who were subject to the caps in CY 1999, but who benefited from increases to the fee schedule, realized increased payments of 34 percent in CY 1999 and an additional 52 percent in CY 2000. Payments by demographic variables reflected the changes in payments particular to the setting.

Noted aberrancies in the volume of claim lines and claim HCPCS reported across the three years were consistent with the transition of institutional providers to a new payment system. These providers transitioned from cost-based payment in CY 1998, which required minimal description of services furnished, to the line-item by date-of-service by HCPCS billing for the MPFS, which had been used by noninstitutional providers since CY 1992. These aberrancies prevent any accurate year-to-year comparison of utilization by volume or cost of individual procedures or claim lines. The study concluded that the total therapy payments, rather than procedure code or line count was the most accurate and consistent measure of utilization across the three years and across provider types.

An important consideration when measuring utilization by total expenditures is that the federal price of the procedures used most commonly for Part B therapy increased in CY 1999, and by more than ten percent in CY 2000. For example, the allowed amount for gait training (97116) increased 4.3 percent in CY 1999 and another 17.1 percent in CY 2000.

Table F. Federal Unadjusted Pricing for Frequently Billed Therapy Procedures

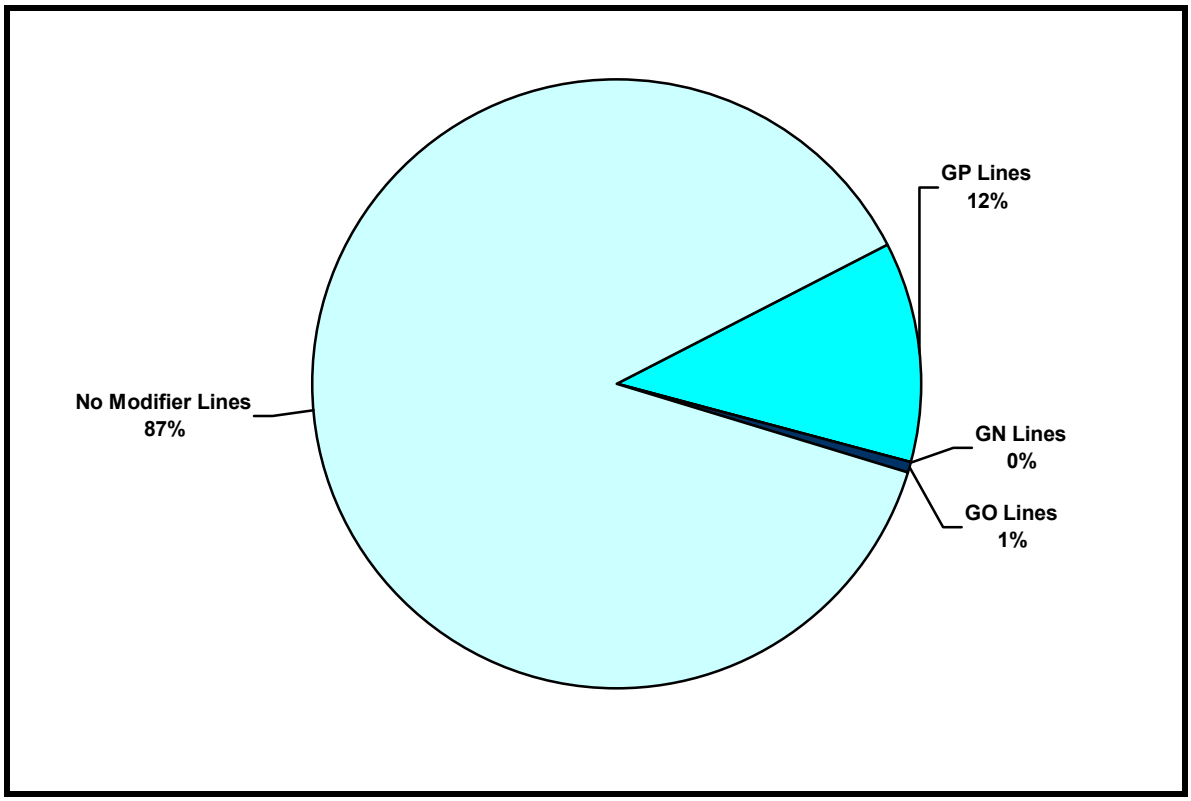
HCPCS Code	Description	1998 Price	1999 Price	2000 Price	Change 98-99	Change 99-00	Change 98-00
92506	Speech evaluation	$49.89	$54.53	$63.71	9.3%	16.8%	27.7%
92525	Dysphagia evaluation	$92.09	$94.82	$103.98	3.0%	9.7%	12.9%
97001	PT evaluation	$57.23	$57.65	$61.88	0.7%	7.3%	8.1%
97002	PT re-evaluation	$22.01	$24.31	$29.29	10.4%	20.5%	33.1%
97003	OT evaluation	$57.23	$59.39	$61.88	3.8%	4.2%	8.1%
97004	OT re-evaluation	$22.01	$24.66	$28.92	12.0%	17.3%	31.4%
92507	Speech treatment	$30.82	$35.77	$45.77	16.1%	27.9%	48.5%
92526	Dysphagia treatment	$37.42	$42.72	$51.63	14.2%	20.8%	38.0%
97035	Ultrasound	$11.37	$12.16	$12.45	6.9%	2.4%	9.5%
97110	Therapeutic exercise	$20.54	$21.53	$23.43	4.8%	8.8%	14.1%
97112	Neuromuscular re-ed	$20.18	$20.84	$24.53	3.3%	17.7%	21.6%
97113	Aquatic therapy	$22.75	$23.27	$26.00	2.3%	11.7%	14.3%
97116	Gait training	$17.98	$18.76	$21.97	4.3%	17.1%	22.2%
97124	Massage	$16.14	$17.02	$20.14	5.4%	18.3%	24.7%
97140	Manual therapy	N/A	$21.88	$26.73	N/A	22.2%	N/A
97530	Therapeutic activity	$21.65	$21.88	$23.07	1.1%	5.4%	6.6%
97535	Self-care/home mgmt	$22.01	$22.23	$25.26	1.0%	13.7%	14.8%

These changes in procedure pricing were related to overall corrections to the entire MPFS regarding the work, practice, and malpractice expenses attributed the performance of each individual procedure, not specifically to therapy services. Were it not for the increase in procedure pricing in CY 1999, the total Part B therapy payment reduction of 34 percent ($780 million) would have been even greater. In addition, it is clear that the marked increase in procedure prices in CY 2000, combined with the increase in patient volume, contributed substantially to the $550 million increase in payments in CY 2000.

2.3 Other Utilization Findings

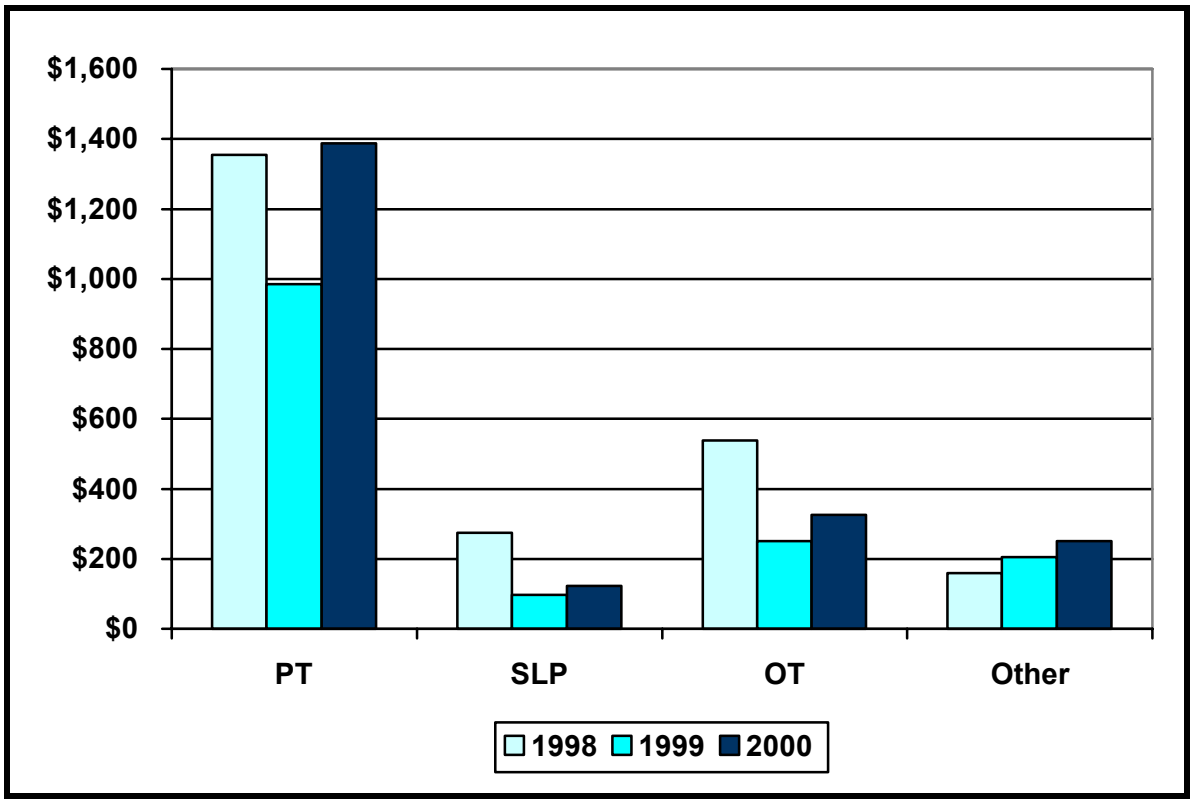
The study found that Medicare claims data prevents accurate identification of the number of beneficiaries who surpassed the outpatient therapy caps as applied in CY 1999. This is because of a lack of compliance with the use of therapy plan of care modifiers on claims containing 'always therapy' procedures. This is particularly problematic when physician and nonphysician providers bill outpatient therapy services, and when institutions bill for therapy services in non-therapist revenue centers. In CY 1999, over 87 percent of noninstitutional provider therapy claim lines did not contain the therapy modifiers required to track the caps. More than $323 million in Part B therapy payments were not associated with a modifier in CY 1999, and this figure grew to over $477 million in CY 2000.

Figure F. CY 1999 Frequency of Therapy Modifier Use - Noninstitutional Settings



For those claims that could be identified as being furnished by a therapist, payments for physical therapy, speech-language pathology, and occupational therapy were reduced by 27 to 64 percent in CY 1999, while payments to physician and nonphysician providers increased by 29 percent. In CY 2000, there were residual reductions in payments for speech-language pathology and occupational therapy of 55 and 39 percent respectively as compared to CY 1998. Figure F demonstrates the three-year changes in Part B PT, SLP, OT and Other therapy payments that were identified by using the billing provider specialty and revenue center criteria rather than the GN, GO and GP modifiers.

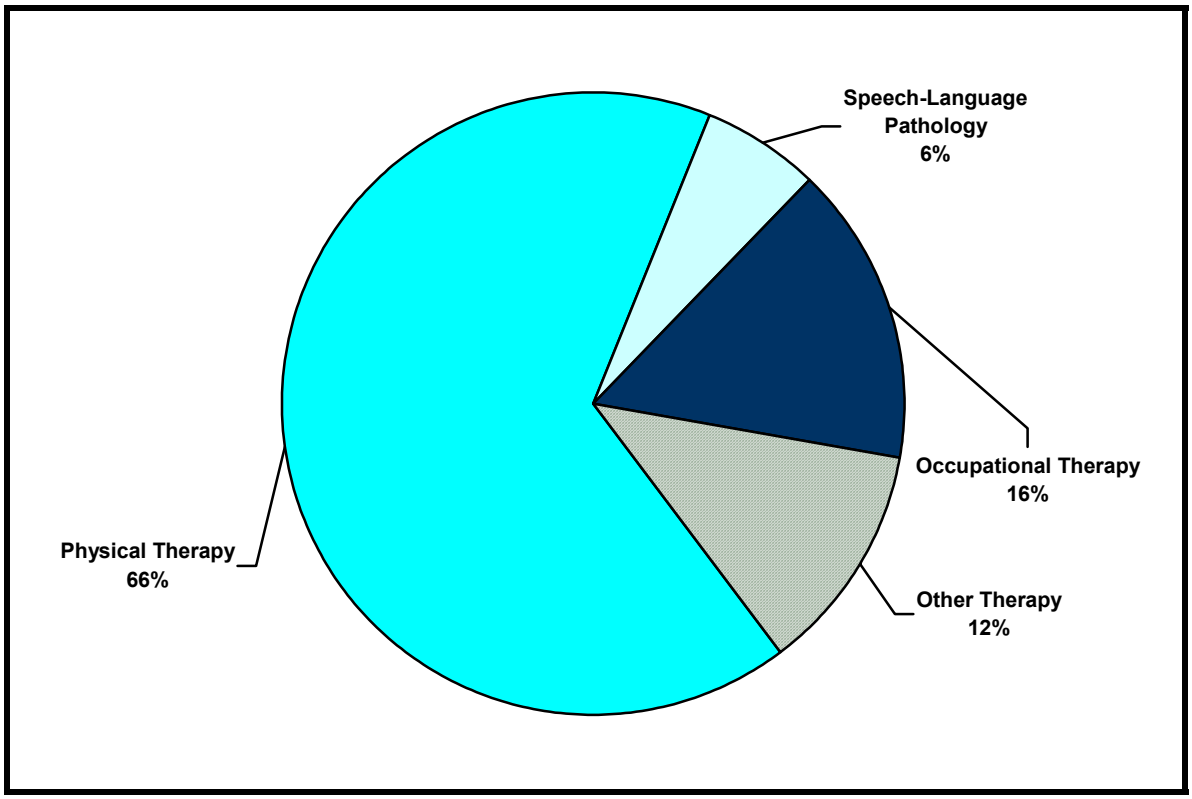
Figure G. CY 1998 - 2000 Outpatient Therapy Payments by Specialty in Millions



Because of the significant amount of payments that could not be attributed to a particular type of service by using the GN, GO, or GP modifiers (more than $323 million in payments in CY 1999 did not have the required modifier), it is not possible to identify the number of individuals who may have exceeded one of the outpatient therapy caps. Even when payments are assigned to PT, OT, or SLP services by the specialty of the provider billing the services, more than $204 million in payments to physicians and nonphysicians for "always therapy" procedures in CY 1999 cannot be attributed to a particular cap.

Figure G highlights that when identifying the claim billing provider specialty and therapy revenue center for CY 2000 utilization, sixty-six percent of Part B therapy payments can be classified as physical therapy services, sixteen percent as occupational therapy, and six percent as speech-language pathology services. The remaining twelve percent are identified as 'Other therapy.'

Figure H. CY 2000 Outpatient Therapy Payments by Specialty



Despite these challenges, through its methodology the study was able to identify the number of individuals whose Medicare payments would have exceeded a combined cap amount that included all Part B therapy services, including those of the 'Other therapy' category. For example, if there were a $3,000 combined cap in CY 1999 (equivalent to $2,400 in Medicare payments), nearly 56 thousand patients surpassed the limitations (Table G).

Table G. Estimated Number of Patients With Annual Therapy Payments Over $2,400 by Age Group in CY 1999

Above $2,400 (N)	≤ 64	65-69	70-74	75-79	80-84	85+	Total (N)
1998	18,024	17,895	27,665	36,022	40,616	72,528	**212,750**
1999	8,341	7,832	10,768	10,906	8,494	9,453	**55,794**
2000	16,413	17,906	24,373	27,026	23,561	31,804	**141,083**
% Change 98-00	**-8.9%**	**0.1%**	**-11.9%**	**-25.0%**	**-42.0%**	**-56.1%**	**-33.7%**

Due to Y2K constraints, CMS applied the caps per beneficiary per provider setting, and not per beneficiary as intended. The study found that many patients received services in excess of the cap amounts in CY 1999. They were able to receive these extended services in any setting, not just hospital outpatient settings, which had been exempt from the caps. As an example, enrollees among the top one percent most costly Part B therapy patients in CY 1999 averaged $5,606 in payments per-patient, and accounted for 12.5 percent of the

total Part B therapy payments that year. The only patients not permitted to receive care beyond the caps in CY 1999 were SNF residents, due to consolidated billing requirements.

National Claims History (NCH) data does not include information on patients whose providers stopped billing Medicare when the cap was reached, and who may have subsequently billed a secondary insurance or the beneficiary directly. In addition, if an institutional provider attempted to bill Medicare for services beyond the caps, the fiscal intermediary may have rejected the claim. Such claims are not included in CY 1999 NCH data. **Therefore, no study can accurately state the total number of beneficiaries whose therapy expenditures exceeded one or both of the caps**. **Studies using claims data can only indicate the minimum number of patients known to have exceeded at least one cap**. **Further, the study found many patients whose Medicare payments did exceed the capped amount. Had the caps been imposed as intended, *at least* 56 thousand additional beneficiaries would have reached at least one cap ceiling in CY 1999, and the overall Part B therapy payment reductions of $780 million would have been even more significant than the 34 percent drop observed**.

Of those enrollees that were among the highest cost users of outpatient therapy services, and likely to surpass payment caps, a disproportionate number were: females, those above 80 years of age; racial minorities; those living in CMS Region VI-Dallas; and those presenting with clinical conditions such as stroke, hip fractures, Parkinson's disease, swallowing disorders, and musculoskeletal conditions affecting the knee, hip and shoulder.

Another remarkable finding in this study is the significant difference in the types of patient conditions treated in the nine practice settings where outpatient therapy services are performed. The clinical diagnoses that generate higher per-patient costs in institutional providers consistently represent the more complex neurological and orthopedic conditions. Noninstitutional providers typically treated less complex orthopedic conditions. In addition, in institutional settings that provide the full range of therapy services, the relative distribution of PT, SLP, and OT services varies markedly by claim diagnoses and between practice settings, clearly indicating the differences in practice patterns between the institutional settings.

3.0 CONCLUSION

The overall trend from CY 1998 to CY 2000 is that the application of the fee schedule to institutional providers created a relatively level playing field of payments to providers furnishing similar services, and created the significant cost reductions desired by Congress. Outpatient therapy services are shifting towards noninstitutional provider settings. The fee schedule markedly affected payments to institutional providers and certain geographic locations, which indirectly affected particular beneficiary demographic groups.

This study has identified that there are marked differences in the outpatient therapy population demographics as compared to the Medicare population. There are strong correlations which indicate that patients who are female, older, minorities, live in certain geographic regions, require the services of institutional providers and suffer from complex

medical conditions are more likely to require more costly outpatient therapy services than the general outpatient therapy population. Without consideration of these variables, payment policy changes may have an unintended impact upon particular groups of beneficiaries.